Honeywell

T7300F Series 2000 Commercial Thermostat and Q7300H Communicating Subbase

SPECIFICATION DATA

APPLICATION

The T7300F Series 2000 Commercial Thermostat and Q7300H Communicating Subbase control 24 Vac commercial single-zone multistage heating, ventilating and air conditioning (HVAC) equipment. Additionally, the Q7300H Subbase allows remote access and the sharing of clock, schedule, setpoints, bypass and other system parameters with other devices in a LONWORKS® network.

FEATURES

T7300F

- **For use with multistage conventional or heat pump applications.**
- **Proportional plus Integral (P+I) control eliminates temperature fluctuations.**
- **Intelligent Recovery® control automatically optimizes equipment start times based on building load.**
- **Intelligent Fan® feature energizes fan continuously in the Occupied periods. Fan can also be configured for conventional heat or electric heat fan operation.**
- **7-day programmable with four periods per day.**
- **Configurable reversing valve operation.**
- **Selectable automatic or manual changeover.**
- **Remote sensor capability.**
- **Keypad lockout available.**
- **Auxiliary contacts can interface with C7400/W7459 Economizer System for total rooftop control integration.**

Q7300H

- **Provides networking capability on a LONWORKS Bus using a Free Topology Transceiver (FTT).**
- **Conforms to LONMARK® thermostat functional profile.**
- **Dial-in capability allows remote monitoring and control of key variables such as time, schedule, setpoints, mode, fan status.**
- **Communicates schedule information to other network devices.**
- **Selects fan operation and system mode using a remote T7300F Thermostat.**
- **Shares information such as time-of-day, temporary setpoint and occupancy status with multiple T7300 or Excel 10 controllers.**
- **Installer setup may be done locally from the T7300 keypad or from a local or remote personal computer.**
- **Fully integrated with Honeywell's light commercial building solutions to provide enhanced alarming, trending, scheduling and dial-out capabilities.**

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CE LONMARK®

SPECIFICATIONS

Models Available:

Q7300H Subbase:

The Q7300H Series 2000 Communicating Subbase includes terminals for connection to the LONWORKS Bus and a network jack for quick access by personal computer based tools. Additionally, a communications service-pin pushbutton is provided to simplify startup.

- Q7300H2003 Communicating Subbase, with O and B terminals, provides 3-stage heating and 2-stage cooling control for heat pump systems.
- Q7300H2011 Communicating Subbase, without O and B terminals, provide 3-stage heating and 2-stage cooling control for heat pump systems.
- Q7300H2029 Communicating Subbase with 3-stage heating and 3-stage cooling control for conventional systems.
- Q7300H2037 Communicating Subbase with 2-stage heating and 1-stage cooling control for conventional systems.

T7300F Thermostat:

T7300F Series 2000 Commercial Thermostat has a keypad for setting system parameters, a corresponding LCD display and a flip-down keypad cover. The T7300F Thermostat mounts on the Q7300H Subbase.

- T7300F2002 Series 2000 Commercial Electronic Thermostat without system and fan switching.
- T7300F2028 Series 2000 Commercial Electronic Thermostat with system and fan switching.

Electrical Ratings:
Power: 20 to 30 Vac, 50/60 Hz.
System Current Draw: 6 VA maximum at 30 Vac, 50/60 Hz.
Output Relay Draw: See Table 1.

Table 1. Maximum Amperes at 30 Vac.

Relay	Running	Inrush
Fan	0.5A	2.5A
Heat (all stages)	1.5A	3.5A
Cool (all stages)	1.5A	7.5A
Auxiliary (Economizer)	1.5A	3.5A

Temperature Ratings:
Operating: 40°F to 110°F (4°C to 43°C).
Shipping: -20°F to +130°F (-29°C to +54°C).
Display Accuracy: ±1°F (±0.5°C).
Setpoint:
Heating: 40°F to 90°F (4°C to 32°C).
Cooling: 45°F to 90°F (7°C to 32°C).
Deadband: 2°F (1°C); adjustable 2°F to 10°F (1°C to 6°C).
Default Settings: See Table 2.

Table 2. Default Setpoints.

Control	Occupied	Unoccupied
Heating	70°F (21°C)	55°F (13°C)
Cooling	78°F (26°C)	90°F (32°C)

Remote Sensor Wiring Temperature Offset:
Occurs with every 500 ft (157m) to 1000 ft (305m) of 2-wire cable. See Table 3.

Table 3. Temperature Offset.

Temperature Range	18 AWG	20 AWG	22 AWG
50 to 90°F	-0.4°F	-0.7°F	-1.0°F
10 to 32°C	-0.3°C	-0.4°C	-0.6°C

Humidity Ratings: 5% to 90% RH, noncondensing.

Auxiliary Heat and Emergency Heat Indication:
Thermostat display indicates when Auxiliary Heat or Emergency Heat is activated.

Clock Accuracy: ±1 minute per month.

Loss of Power: Thermostat maintains programmed times and temperatures for product life. Clock and day information is retained for two hours.

Minimum Stage Operation Time:
Minimum On (Heat and Cool): Factory setting 2 minutes; adjustable 0 to 2 minutes.
Minimum Off (Compressor): Factory setting 4 minutes; adjustable 0 to 5 minutes.
Minimum Off (Heat): Factory setting 4 minutes; adjustable 0 to 4 minutes.

Mounting:
T7300F Thermostat mounts on a Q7300H Subbase.
Q7300H Subbase mounts horizontally on a wall or outlet box with two no. 6 x 32 screws and anchors (included).

Finish (color): Taupe.

Accessories:
C7400 Enthalpy Sensor.
R8222 Switching Relay.
T675A Temperature Control.
T7022A1010 Remote Temperature Sensor.
T7047C Remote Temperature Sensor.
T7047G Remote Temperature Sensor.
T7147A Remote Temperature Sensor and Override Module.
W859F Packaged Economizer.
W950A System Supervisor.
W7459 Economizer Logic Module.
C7046C Discharge Air Sensor.
C7150B Discharge Air Sensor.

Dimensions: See Fig. 1.

LONMARK Functional Profile:
Q7300H supports the LONMARK Functional Profile No. 8060, Thermostat Object (Type 09). See Fig. 2.

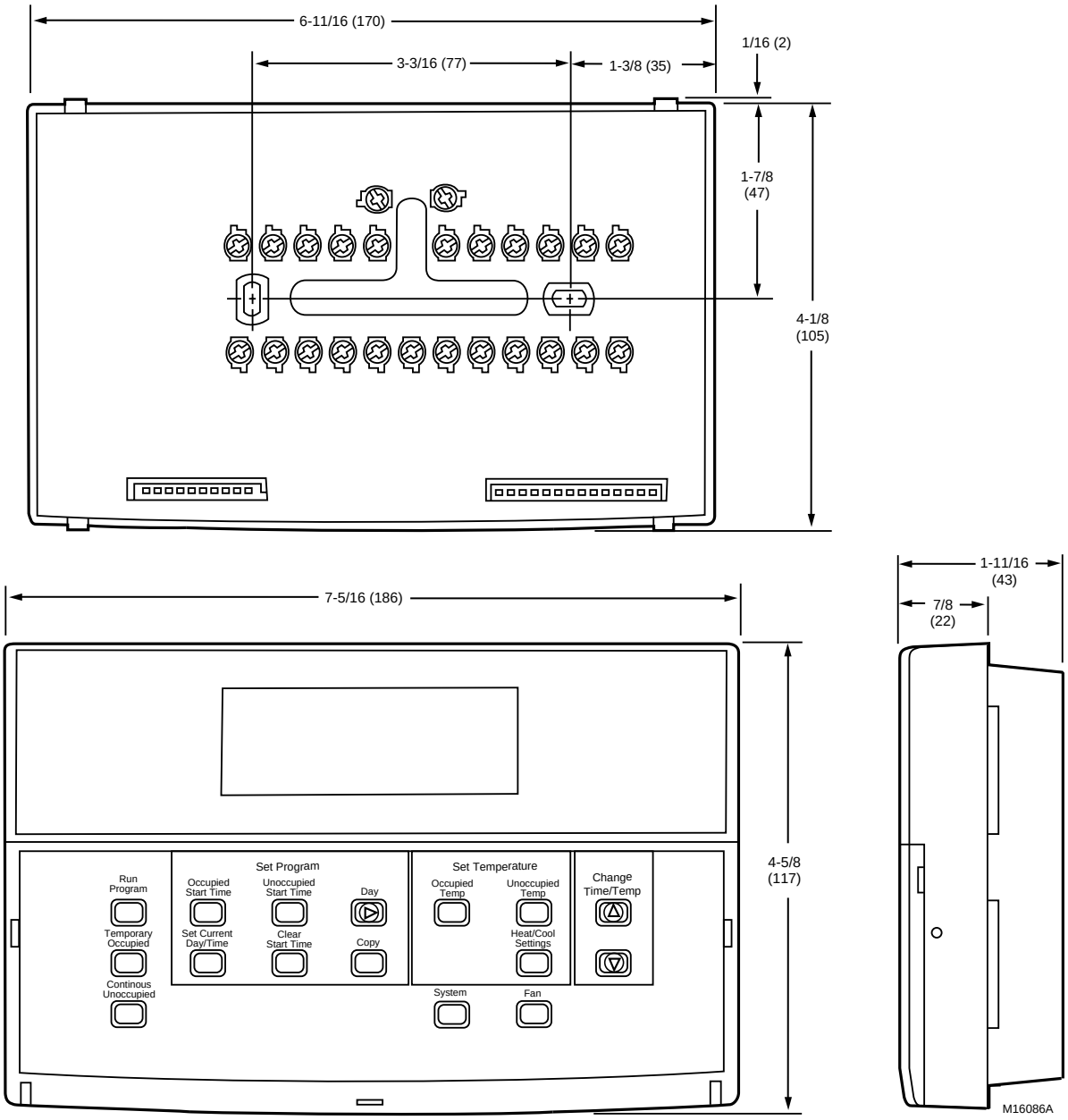

Fig. 1. Dimensions of T7300F, Q7300H in in. (mm).

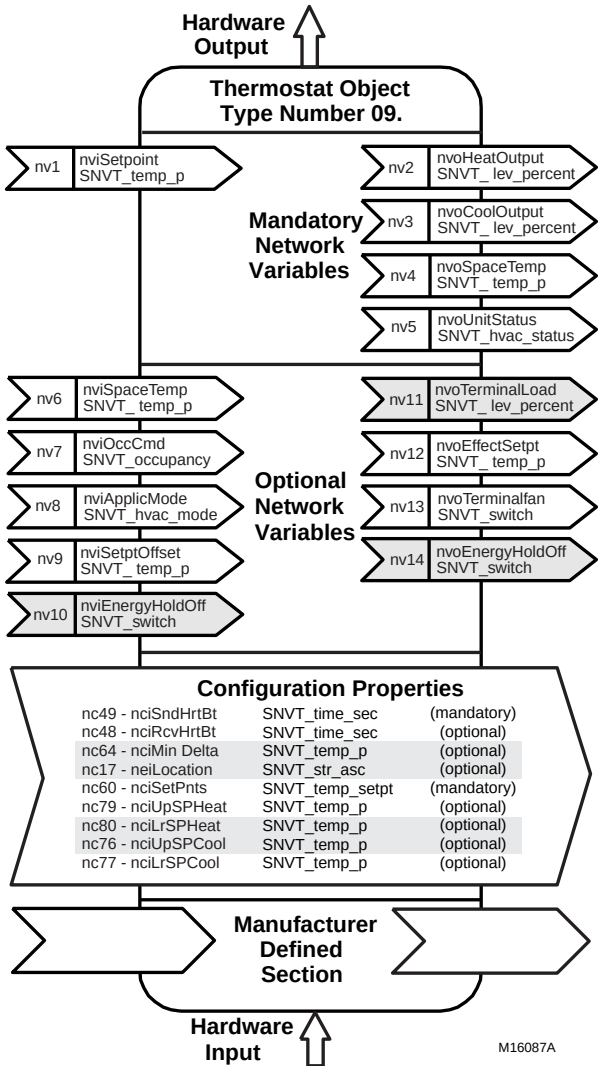

Fig. 2. Functional Profile Number 8060—LONMARK Thermostat Object (Type 09). (Thermostat profile variables not used are grayed).

NOTE: For additional information on the LONMARK Functional Profile, see the LONMARK Application Layer Interoperability Guidelines and the LONMARK Functional Profile: Thermostat. Both documents are available from LONMARK at internet address: www.lonmark.org.

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Honeywell

Home and Building Control
Honeywell
1985 Douglas Drive North
Golden Valley, MN 55422

Home and Building Control
Honeywell Limited-Honeywell Limitée
35 Dynamic Drive
Scarborough, Ontario
M1V 4Z9

Honeywell International
Home and Building Control
Honeywell Building
17 Changi Business Park Central 1
Singapore 486073

Honeywell Europe S.A.
3 Avenue du Bourget
1140 Brussels
Belgium

Honeywell Latin American Region
480 Sawgrass Corporate Parkway
Suite 200
Sunrise FL 33325

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